for the future: Dr. Richard J. Goldberg working on the 97th and Gerald G. Graham working on the 98th.

From past programs there were 15 members who have done 17 programs, here listed alphabetically:

Max Beard, 88th (Fifth Congress)
Jack Behrend, 92d
Geo. W. Colburn, 71st
Herbert E. Farmer, 83rd, 87th
C. Loren Graham, 90th
C. E. Heppberger, 77th, 84th
Henry N. Kozanowski, 93rd
Garland C. Misener, 85th
Bernard D. Plakun, 79th
Morton H. Read, 94th
William H. Rivers, 69th
Roger J. Ross, 89th
John M. Waner, 95th
J. Paul Weiss, 86th
Deane R. White, 82d.

Before there were Program Chairmen, per se, there was a Papers Committee Chairman and a Regional Chairman listed as responsible for each program. Going back to the 63rd Program (1948) we find most of those jointly responsible for the 63rd through 67th Programs were at the 96th: Gordon Chambers, Norwood L. Simmons and R. T. Van Niman.

The problems of planning and staging two major Technical Conferences with exhibits each year are constantly growing and the Society is well aware that it must continually strive for increased efficiency in its conference organization to ensure the effectiveness of the meetings.

Education, Industry News

The 7th American Film Festival sponsored by the Educational Film Library Association will be held April 21–24, 1965, at the Biltmore Hotel, New York. Blue Ribbon Awards will be presented to the winning nontheatrical films entered in competition before January 20, 1965. All 16mm films and 35mm filmstrips released in the United States during the calendar year 1964 are eligible for Festival competition. There are 34 competition categories grouped under the general headings of Art and Culture; Business, Industry and Public Relations; Education and Information; Health, Safety and Medicine; and Religion and Ethics. Additional information is available from Educational Film Library Association, 250 W. 57 St., New York, N. Y. 10019.

The International Broadcasters Society is a new organization officially formed in May 1964 with headquarters in the Netherlands. (The address given in the announcement is IBS-International, P.O. Box 128, Bussum (NH) Holland.) Membership is open to all persons and organizations connected with radio or television, including film, sound and news services. Director of IBS-International is Timothy D. R. Thomason. Underlying motive for the organization's activities is the belief that "better broadcasting can make a better world," the announcement stated.

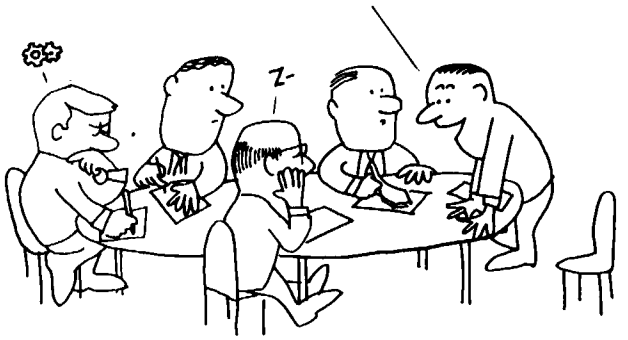
The Educational Film Library Association has announced results of its annual election of officers held during a meeting of the Association's Board of Directors held in New York during October. Newly elected EFLA President is Galon R. Miller, A-V Director of the South Bend Community School Corp.; Vice-President, James L. Limbacher, A-V Director of the Dearborn Public Library; and Secretary, William J. Speed, A-V Director of the Los Angeles Public Library. Mr. Speed is a new member of the EFLA Board on which he represents public libraries and general education. Another new Board member is Lewis Saks, A-V Director of the East Detroit Public Schools, who represents public schools; and Elliot H. Kone, Director of the A-V Center of Yale University, was reelected to the EFLA Board to represent colleges and universities.

The Association also reported a Film Evaluation Workshop held November 12–13 at the International Hotel in Los Angeles. Open to film librarians and others who work with nontheatrical films in any field, the Workshop was planned in response to requests from many EFLA members, the announcement stated.

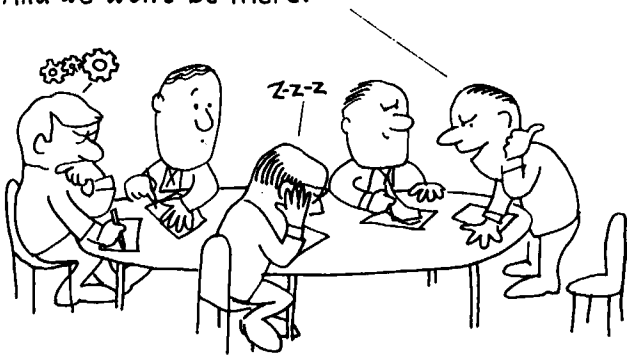
EFLA headquarters are located at 250 W. 57 St., New York, N. Y. 10019.

The 10th Anniversary Tri-Service Conference on Electromagnetic Compatibility will be held November 17–19 at the Museum of Science and Industry in Chi-

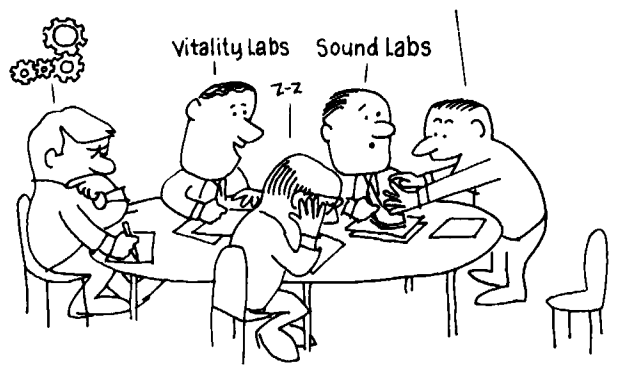
1. Now, gentlemen! Let's get to it. Business is fine, but it's been brought to my attention that there is a lack of recognition of Tri Art as the name of Du Art's color lab, and I propose to do something about it!



2. I'm going to change the name of Tri Art! It will confuse the hell out of anybody who tries to appease us by learning that name tomorrow. They'll wake up and start screaming Tri Art!... And we won't be there.

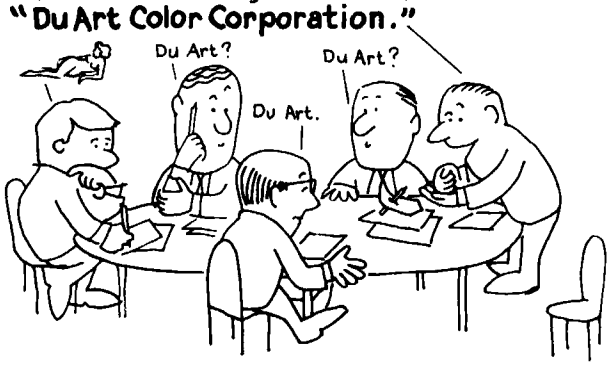


3. Now, I want you to come up with a brand new name for our color operations that will convey our new image. It's got to reflect the vitality of our young management and the soundness of our 40 years of experience. The new name must make clear that we have made a tremendous investment in new equipment in the last 10 years.

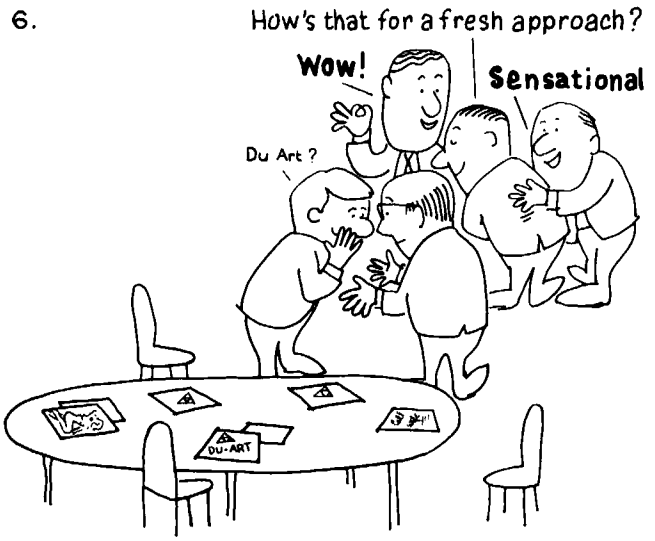


4. You're not getting the idea! It must have wham-o! Why with our new editing rooms for our customers, our new fiber optics color printing, our tightened inspection and absolute quality control, we can beat anybody for service, quality and facilities! Let's try some more!

5. I've got it! I just thought of it! Just the name to say everything! It reeks of speed, our fantastic equipment, personalized, sensational service, and dynamic follow-up combined with the knowledge based on our unsurpassed 40 years of experience! Brace yourselves... Here it comes! **"Du Art Color Corporation."**



6.



cago. The Conference will be conducted by IIT Research Institute for the Army, Navy and Air Force. Chairman of the Conference is James J. Krstansky of IITRI, an electromagnetic compatibility scientist. Sessions will explore the growing problem of radio frequency interference created by the growth in operating electronic equipment. Session topics include Electromagnetic Compatibility; Instrumentation; Prediction; Measurement Techniques; Cable Coupling and Shielding; Reduction Techniques; Antennas; Transients; and Specifications and Specifications Testing.

The Rochester Institute of Technology, 65 Plymouth Ave. So., Rochester, N.Y. 14608, is engaged in a fund-raising campaign for an entirely new campus that would relieve overcrowding and provide for future expansion. The selected site, about five miles away from the present downtown location, is in an area believed to provide an ideal academic environment away from noise and traffic problems. It is also expected to provide a long-range solution to the Institute's expanding enrollment, which, it is predicted, will double by 1971.

An important part of RIT is the School of Photography and one aspect of the New Campus Fund activities consists of presenting information about the school and its objectives. A few interesting bits of information excerpted from a recently issued brochure —

"Of all the colleges and universities in the United States, only Rochester Institute of Technology has recognized photography on the same basis as engineering, architecture and the other fields of specialized knowledge by offering programs leading to Bachelor's and Master's degrees. . . .

"Three majors are offered leading to Bachelor of Science degrees in photographic science, professional photography, and photographic illustration. . . .

"C. B. Neblette is Director of the School of Photography and also serves as Dean of the College of Graphic Arts and Photography. . . .

"The School (presently) occupies one floor of the George H. Clark building erected in 1946. . . . The School has been able to keep abreast of technological advances by spending more than $250,000 on photographic and scientific equipment and by securing contributions of various supplies and equipment from interested firms within the industry. . . .

"The 1963–64 term has an enrollment of 344 undergraduates. . . .

"Although capacity enrollment has already been admitted for the next two years, the School still graduates less than a third of the men needed by the photo science field, and it is common for students to receive three and sometimes four job offers prior to graduation. . . ."

An important diagnostic procedure involving split-screen television recordings has been demonstrated by the medical electronics staff of the Eye Research Institute branch of the Institute of Medical Sciences at Presbyterian Medical Center in San Francisco. The technique is said to afford for the first time continuous visual correlation between separate causes and effects.

The demonstration, recorded on a PI-3V (Precision Instrument Co.) portable television recorder, was conducted in a copper-screened, electrostatically shielding room. Inputs from one omnidirectional microphone and one vidicon camera focused on the patient and two others focused on graphic display devices. Because of the recorders simplicity of operation, the recordings can be made by a single operator.

Among the simultaneous phenomena to be analyzed in ocular electromyographic procedures are (1) the surgeon's implacement of electrodes in the patient's eye muscles; (2) the surgeon's spoken instructions for eye movement by the patient afflicted with strabismus, nystagmus or other malfunction; (3) the instant-to-instant position of one or both eyes; (4) the 30-cps to 2-kc range electromyographic signals converted to audible sonic energy; and (5) the same signal transcribed on an optical galvanometer and/or displayed on an oscilloscope.

With previous technology, correlation of such accumulations of data was necessarily haphazard. For example, an assistant would attempt to note the surgeon's oral command of "gaze down" on oscillographic paper moving at 12 in./sec.

At the demonstration, during playback, the PI-3V recorder, which uses 1-in. magnetic tape, was operated in its stop-motion mode to allow scrutiny of important segments, as well as in normal playback to present an integrated graphic presentation of the diagnosis and for later instructional use.

A technique by which a laser beam can be used to drill microscopic holes in metal as hard as tungsten has been developed by RCA's Aerospace Systems Div., Burlington, Mass. This laser drilling application "could" lead to extremely compact and fast micro-energy units for computers, the announcement stated. A ruby laser set up on an optical bench has been used to drill holes as small as one ten-thousandth of an inch in diameter in tungsten wires. The key to compactness and low electrical energy requirements in computer memory systems lies in drilling holes very close to each other in magnetic wire, the announcement explained. The laser drilling method speeds up the action of the computer memory because the wires carrying the memory information, which pass through the holes, need change the polarity of only a portion of the metal between the two holes to store a bit of information.

Fine-celled foamed polymers have been produced at Bell Telephone Laboratories by means of a technique which employs metal and alloy particles to nucleate bubbles from solutions of gases in the molton polymers. The volume of cells in these plastic foams is reported to be 1,000 times smaller than the volume of cells formed with gas-injection techniques alone. (Fine-celled foams may be used for wire insulation and dielectric coatings of all kinds where small cell size enhances dielectric and mechanical properties.) With the new technique, metal bubble nucleators can initiate cells at any temperature range above the softening point of the polymer. Also, the metal particles are unaffected by changes in the time it takes them to pass through the extruder.

Parthenon Pictures, 2625 Temple St., Hollywood, Calif. 90026, has been awarded the CINE Golden Eagle for the film *With Care and Concern,* and other important Festival awards, including the NVPA Plaque for the best sales training film (*Heavy Going,* produced for Ford Motor Co.); the Columbus Festival Statuette for *What'll You Do If. . .?*; four Chris awards; and an award from the Society for the Advancement of Management for the film, *Everybody Has Two Jobs — His Own and Public Relations.* The firm's Executive Producer, Charles Palmer, represents business and educational films on the Hollywood Museum Board of Directors.

Marvin Camras, scientist at IIT Research Institute, Chicago, is recipient of a plaque from the Institute of Electrical and Electronic Engineers honoring his pioneering work in magnetic recording. Presentation was made during the National Electronics Conference (held in Chicago in October) by Edwin B. Hassler, IEEE Consumer Electronics Awards Committee Chairman. The award presented to Mr. Camras is the first of its kind presented by IEEE consumer electronic groups.

The citation read during presentation ceremonies described Mr. Camras's first essay in the field of sound transcription when "as a 23-year-old junior at Illinois

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CLIFTON, N. J., 380 Allwood Rd., Allwood Station (New York). PLaza 7-0573
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BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

Institute of Technology (he) used piano wire to make the first practical wire recorder. Although his main idea at the time was to help a musically inclined cousin, the device and its concept soon revolutionized the whole technique of sound transcription, starting the multimillion dollar magnetic recording industry."

After graduation, Mr. Camras joined the staff of Armour Research Foundation of IIT — now IIT Research Institute — where he perfected and found new application for his techniques. As a result of his investigations, IIT Research Institute has owned or controlled several hundred United States and foreign patents in magnetic recording.

David J. Rosenthal has been appointed Assistant Manager of Century Lighting's TV and Photographic Lighting Dept. with headquarters at 521 W. 43 St., New York, N.Y. 10036. Prior to his present appointment he was associated with Century's Rental Dept. Mr. Rosenthal has had extensive experience as stage manager, lighting designer, stage electrician, and technical director for educational and community theater organizations.

Identicolor Laboratory, Inc., has moved to new quarters with larger plant facilities to accommodate its continued expansion of production and service, according to a recent announcement. The new location is 849 N. Highland Ave., Los Angeles, Calif. 90038. The firm, which is principally engaged in the audio-visual field, recently acquired the Laboratory Division of Execugraf Corp., manufacturers of audio-visual equipment. New facilities will include a completely equipped projection room, soundproof recording room and complete vault storage for all masters, negatives and original mastering material.

Arthur Hatch has been elected President and Chief Executive Officer of Theatre Equipment and Supply Manufacturers Association (TESMA). Mr. Hatch, who is President of Strong Electric Corp. of Toledo, Ohio, has been Vice-President of TESMA since 1960. He is succeeded by Richard Kneisley, who has been a member of TESMA's Board of Directors for several years. Mr. Kneisley is President of Kneisley Electric Corp. of Toledo.

Gale Livingston has been appointed President of Aero Service Corp., a Division of Litton Industries. He was formerly President of the Westrex Division of Litton and, according to the announcement, both Aero and Westrex will now report to him. Thomas M. O'Malley will continue as general manager of Aero Service. Theodore L. Jacobsen, former Vice-President and Director of Marketing, has been promoted to General Manager of Westrex.

W. H. Ebeling, for many years the Laboratory Manager for the Alexander Film Co. of Colorado Springs, has been appointed General Manager of Audio Visual Systems, Inc., 781 Umatilla St., Denver, Colo. The appointment became effective September 1.

Wilding Inc., a business communications agency located in Chicago, has acquired Tri-Dex Display Corp., 13790 Nelson St., Detroit, Mich. The firm designs and produces displays and exhibits for trade shows, conventions and point-of-sale. The facility covers an area of 20,000 sq ft and includes a workshop, storage space, design and drafting room and a model-building room. Operation as a Wilding subsidiary is expected to begin in December. In addition to displays and exhibits, Wilding also produces industrial motion pictures, slides and slidefilms, "live" industrial theater, recordings, TV commercials and printed materials.

Color Film Corp. of Mamaroneck, N. Y., has moved to larger and more modern quarters about a block from its present location. It is now located at 500 Halstead Ave., Mamaroneck, in a 10-year-old building purchased from American Avitron Corp. The building provides 6,000 sq ft of space with room for further expansion. Established in 1950, the firm specializes in printing and processing Eastman Color Negative for filmstrip use. Other services include quantity slide production and printing and processing Kodak 6008 Internegative.

MVR Corporation is the new name of the firm formerly known as Machtronics, Inc. No other change has been made in the corporate structure, the announcement stated, and the firm is still located at 470 San Antonio Road, Palo Alto, Calif. 94306. The change in name was made to identify the firm more closely with its MVR product line and also to eliminate any possible confusion between "Machtronics and phonetically similar names of companies in the electronics field," the announcement stated.

Metromedia, Inc., 205 E. 67 St., New York, N.Y. 10021, has acquired the entire stock of Wolper Productions, Inc., of Los Angeles, an independent producer of documentary films. Wolper Productions will become a wholly-owned subsidiary of Metromedia. Divisions of Metromedia include Metropolitan Broadcasting Television; Metro TV Sales; Metro Radio Sales; Foster & Kleiser (an outdoor advertising firm); Ice Capades; Metro Transit Advertising; Mount Wilson and SuperSpace.

books reviewed

Popov and the Beginnings of Radio Telegraphy

By Charles Susskind. Published (1962) by the San Francisco Press, 255 Twelfth St., San Francisco 3, Calif., 30 pp., 5½ by 8½ in. Price $1.25.

The Invention of the Traveling-Wave Tube

By Rudolf Kompfner. Published (1964) by the San Francisco Press, 255 Twelfth St., San Francisco 3, Calif., 30 + iv pp., 6 by 8½ in. Price $1.50.

The San Francisco Press is bringing out a number of historical monographs on recent inventions in the electronic arts, and these two booklets are part of the series.

The first, by Susskind, is essentially a reprint of a paper in the October 1962 *Proceedings of the IRE*. It compares the record of the contributions to "wireless telegraphy" (now called "radiotelegraphy") of Popov and Marconi. The conclusion the author reaches is:

"All credit should go to Popov for independently evolving the same practical receiver design [the coherer] from Lodge's first suggestion as Marconi did, and for carrying out further experiments in the face of substantial obstacles.... There is every indication that Popov's subsequent work was likewise of the highest caliber; had he had the opportunity (he died in 1905), he would have doubtless continued to make important contributions. The Russians have good reason to be proud to